

**PCT**

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|   |           |  |
|---|-----------|--|
| <b>(51) International Patent Classification <sup>S</sup> :</b><br><b>G07F 7/02, G07G 1/00</b>   | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 91/18373</b><br><b>(43) International Publication Date:</b> 28 November 1991 (28.11.91)  |
| <b>(21) International Application Number:</b> PCT/GB91/00819<br><b>(22) International Filing Date:</b> 23 May 1991 (23.05.91)<br><b>(30) Priority data:</b><br>9011633.6 24 May 1990 (24.05.90) GB<br><b>(71) Applicant (for all designated States except US):</b> BILGREY SAMSON & COMPANY LIMITED [GB/GB]; George House, George Road, Edgbaston, Birmingham B15 1PG (GB).<br><b>(72) Inventor; and</b><br><b>(75) Inventor/Applicant (for US only) :</b> STANLEY, Wyatt, James [GB/GB]; The Coach House, Keswick Manor, Lower Broad Heath, Worcestershire B66 4RX (GB). |           | <b>(74) Agent:</b> SHAW, Laurence; George House, George Road, Edgbaston, Birmingham B15 1PG (GB).<br><b>(81) Designated States:</b> AT, AT (European patent), AU, BB, BE (European patent), BF (OAPI patent), BG, BJ (OAPI patent), BR, CA, CF (OAPI patent), CG (OAPI patent), CH, CH (European patent), CI (OAPI patent), CM (OAPI patent), DE, DE (European patent), DK, DK (European patent), ES, ES (European patent), FI, FR (European patent), GA (OAPI patent), GB, GB (European patent), GR (European patent), HU, IT (European patent), JP, KP, KR, LK, LU, LU (European patent), MC, MG, ML (OAPI patent), MR (OAPI patent), MW, NL, NL (European patent), NO, PL, RO, SD, SE, SE (European patent), SN (OAPI patent), SU, TD (OAPI patent), TG (OAPI patent), US.<br><br><b>Published</b><br><i>With international search report.</i><br><i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> |
| <b>(54) Title:</b> TRADING DISCOUNT SYSTEM<br><br><b>(57) Abstract</b><br><br>A token is supplied to customers at a retail shop e.g. a petrol station, and is handled by a read/write apparatus at the station to record credits according to the level of purchases, which may then be used towards the cost of other purchases.   |           |  |

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

|    |                          |    |                                       |    |                          |
|----|--------------------------|----|---------------------------------------|----|--------------------------|
| AT | Austria                  | ES | Spain                                 | MG | Madagascar               |
| AU | Australia                | FI | Finland                               | ML | Mali                     |
| BB | Barbados                 | FR | France                                | MN | Mongolia                 |
| BE | Belgium                  | GA | Gabon                                 | MR | Mauritania               |
| BF | Burkina Faso             | GB | United Kingdom                        | MW | Malawi                   |
| BG | Bulgaria                 | GN | Guinea                                | NL | Netherlands              |
| BJ | Benin                    | GR | Greece                                | NO | Norway                   |
| BR | Brazil                   | HU | Hungary                               | PL | Poland                   |
| CA | Canada                   | IT | Italy                                 | RO | Romania                  |
| CF | Central African Republic | JP | Japan                                 | SD | Sudan                    |
| CG | Congo                    | KP | Democratic People's Republic of Korea | SE | Sweden                   |
| CH | Switzerland              | KR | Republic of Korea                     | SN | Senegal                  |
| CI | Côte d'Ivoire            | LI | Liechtenstein                         | SU | Soviet Union             |
| CM | Cameroon                 | LK | Sri Lanka                             | TD | Chad                     |
| CS | Czechoslovakia           | LU | Luxembourg                            | TG | Togo                     |
| DE | Germany                  | MC | Monaco                                | US | United States of America |
| DK | Denmark                  |    |                                       |    |                          |

TRADING DISCOUNT SYSTEM

The invention relates to the dispensing of vouchers e.g. trading stamps and the like for use in retailing.

It is known to provide trading stamps to a customer at a store in return for purchases made by the customer at that store, the amount of stamps being given in proportion to the amount of money spent. The stamps may then be collected by the purchaser and redeemed at a later date for money or moneysworth. Such stamps are used as a means of building up the loyalty of a customer.

However, it can be awkward and time-consuming to collect and stick the stamps on to cards and books, and the supply of such stamps is open to abuse and fraud.

According to one aspect of the invention, there is provided apparatus to be located at a retail outlet, preferably adjacent a checkout, the apparatus comprising a housing having a slot to receive a card token, the housing containing reader/writer means in the path of the card token in the slot to read/write on to a card token received in the apparatus a credit or moneysworth in proportion to the amount of money spent by a customer at that retail outlet, the card token having means thereon to record the

credits received, the apparatus also being arranged selectively to debit that card token in exchange for moneysworth or goods or services, once sufficient credit has been recorded.

Preferably the apparatus includes a laser source and the token is adapted to be read and written upon by optical, e.g. laser means. Magnetic tokens may also be used.

In an example, a retail outlet such as a petrol company issues, with or without payment, tokens in card form to drivers. Each card is encoded with an identification number peculiar to the card holder e.g. a driver, whose name and address are stored on a computer. The driver visits a petrol station owned by the petrol company and, having purchased petrol, the driver or the checkout operator inserts the driver's card into apparatus of the invention adjacent the checkout which writes thereon a number or value of credits in proportion to the amount of petrol purchased. This is repeated on subsequent future visits to other petrol stations owned by the petrol company until the driver has collected a large number of credits. The card may then be inserted into the apparatus and debited in exchange, for example, for petrol or other goods or services.

The use of such a card binds the loyalty of the driver to a particular petrol company, and the driver is spared the tedium of sticking stamps on to cards and books. The operator is saved the

administrative work in checking stamps.

Because each card is particular to each customer, it is easy for the operator to monitor the rate of use of each card and spot cases of fraudulent use. The information that may be generated about the buying habits of the customer is also useful for market research purposes.

In another embodiment the apparatus may be connected to a centralised computer, and the customer may also use the card in the manner of a charge or credit card to pay for his purchases.

In order that the invention may be well understood it will now be described with reference to the following example.

A card reader/writer unit of known type e.g. available from Leisure Card Ltd., is mounted adjacent the cash till at a petrol station. The unit comprises a housing having a card receiving slot, a read/write device being present adjacent the path of the card into the slot. Drivers are each allocated a card with a unique number. When the driver buys petrol to the value of say £10.00, the till operator inserts the driver's card into the reader/writer and adds a credit of £10.00. The process is repeated. When the driver wishes to buy an item (other than petrol), the credits on a card of the invention are used towards that purchase either to the value of the item or as a discount

3 PAGE BLANK (USPTO)

CLAIMS

1. Apparatus to be located at a retail outlet, the apparatus comprising a housing having a slot to receive a card token, the housing containing reader/writer means in the path of the card token in the slot to read/write on to a card token received in the apparatus a credit or moneysworth in proportion to the amount of money spent by a customer at that or another retail outlet, the card token having means to record the credits received, the apparatus also being arranged selectively to debit that card token in exchange for moneysworth or goods or services, once sufficient credit has been recorded.
2. Apparatus according to Claim 1, wherein the token is adapted to be read and written upon by optical, e.g. laser, means.
3. Apparatus according to Claim 1, wherein the token has magnetic tracks.
4. Apparatus according to any preceding Claim, wherein the token is encoded with an identification number peculiar to the token holder.

5. Apparatus according to any preceding Claim, located adjacent a checkout at a retail outlet.
6. Apparatus according to any preceding Claim, connected to a central computer arranged to record the transactions on the card.



# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 91/00819

|  |  |                                     |
|--|--|-------------------------------------|
| <b>I. CLASSIFICATION OF SUBJECT MATTER</b> (If several classification symbols apply, indicate all) <sup>6</sup>  |  |                                     |
| According to International Patent Classification (IPC) or to both National Classification and IPC<br>Int.Cl. 5                      G07F7/02 ;      G07G1/00   |  |                                     |
| <b>II. FIELDS SEARCHED</b>   |  |                                     |
| Minimum Documentation Searched <sup>7</sup>  |  |                                     |
| Classification System  | Classification Symbols   |                                     |
| Int.Cl. 5  | G07F ;              G07G   |                                     |
| Documentation Searched other than Minimum Documentation<br>to the extent that such Documents are Included in the Fields Searched <sup>8</sup>  |  |                                     |
|  |  |                                     |
| <b>III. DOCUMENTS CONSIDERED TO BE RELEVANT<sup>9</sup></b>  |  |                                     |
| Category <sup>o</sup>  | Citation of Document, <sup>11</sup> with indication, where appropriate, of the relevant passages <sup>12</sup>                   | Relevant to Claim No. <sup>13</sup> |
| X  | EP,A,0 189 691 (COOPERATIVES DE CONSOMMATION)<br>August 6, 1986<br>see claims; figures<br>---                                    | 1,3-6                               |
| X  | EP,A,0 253 240 (OMRON TATEISI ELECTRONICS)<br>January 20, 1988<br>see abstract<br>see claims; figures<br>---                     | 1,3-6                               |
| A  | GB,A,2 094 532 (E. ELINDER) September 15, 1982<br>---  |                                     |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><sup>o</sup> Special categories of cited documents : <sup>10</sup></p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the International filing date</p> <p>"I" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&amp;" document member of the same patent family</p> </div> </div> |  |                                     |
| <b>IV. CERTIFICATION</b>   |  |                                     |
| Date of the Actual Completion of the International Search<br><br><div style="text-align: center; font-weight: bold;">24 SEPTEMBER 1991</div>   | Date of Mailing of this International Search Report<br><br><div style="text-align: center; font-weight: bold;">01 OCT 1991</div> |                                     |
| International Searching Authority<br><br><div style="text-align: center; font-weight: bold;">EUROPEAN PATENT OFFICE</div>  | Signature of Authorized Officer<br><br><div style="text-align: center;">DAVID J.Y.H. </div>                                      |                                     |

# ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO.

GB 9100819  
SA 47713

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24/09/91

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---------------------|----------------------------|---------------------|
| EP-A-0189691                              | 06-08-86            | FR-A- 2574962              | 20-06-86            |
| EP-A-0253240                              | 20-01-88            | JP-A- 63173194             | 16-07-88            |
|   |                     | JP-A- 63175997             | 20-07-88            |
|   |                     | JP-A- 63014297             | 21-01-88            |
| GB-A-2094532                              | 15-09-82            | FR-A, B 2500943            | 03-09-82            |
|   |                     | SE-A- 8101276              | 28-08-82            |